FCC TEST REPORT (15.407)

REPORT NO.:	RF130509C08-2
MODEL NO.:	CB2
FCC ID:	HFS-Y
RECEIVED:	May 09, 2013
TESTED:	May 01, 2013 ~ May 28, 2013
ISSUED:	Jun. 20, 2013

APPLICANT:	Quanta Computer Inc.
ADDRESS:	No. 188, Wen Hwa 2nd RD.; Kuei Shan Hsiang, Tao Yuan Shien, Taiwan

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C)
TEST LOCATION:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF130509C08-2	Original release	Jun. 20, 2013

1. CERTIFICATION

PRODUCT:	Laptop
MODEL NO.:	CB2
APPLICANT:	Quanta Computer Inc.
TESTED:	May 01, 2013 ~ May 28, 2013
TEST SAMPLE:	Production Unit
STANDARDS:	**FCC Part 15, Subpart E (Section 15.407)**
	ANSI C63.10-2009

The above equipment (model: CB2) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Evonne Liu , **DATE :** Jun. 20, 2013

Evonne Liu / Specialist

APPROVED BY : Sam Chen , **DATE :** Jun. 20, 2013

Sam Chen / Assistant Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	**TEST TYPE**	**RESULT**	**REMARK**
15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -13.72dB at 16.01563MHz.
15.407(b/1/2/3)(b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -7.88dB at 43.5MHz.
15.407(a/1/2)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Laptop
MODEL NO.	CB2
POWER SUPPLY	5.25Vdc (adapter or host equipment) 11.1Vdc (Li-ion battery)
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to MCS7
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz & 5500 ~ 5700MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (20MHz) 3 for 802.11n (40MHz)
OUTPUT POWER	15.473mW for 5180 ~ 5240MHz 18.295mW for 5260 ~ 5320MHz 26.600mW for 5500 ~ 5700MHz
ANTENNA TYPE	PIFA antenna with 1.61dBi gain (5180 ~ 5240MHz) PIFA antenna with 1.61dBi gain (5260 ~ 5320MHz) PIFA antenna with 0.03dBi gain (5500 ~ 5700MHz)
ANTENNA CONNECTOR	NA
DATA CABLE	Refer to Note as below
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Refer to Note as below

NOTE:

1. The EUT has following accessories.

ITEM	BRAND	MODEL	DESCRIPTION
AC Adapter	LEI	MU15-N1052-A00S	I/P: 100-240Vac, 0.5A, 50-60Hz O/P: 5.25Vdc, 3A
Li-ion Battery	SMP	SQU-1208	Rating: 11.1Vdc, 2700mAh
Camera	Lite-on	12P2SF004	--
11.6" LCD Panel	LG	LP116WH6	--
Battery Pack	SMP	SQU-1208	--
CPU	Samsung	Exynos 5250	--
Memory Capacity	N/A	N/A	2GB

2. The following wireless modules are collocated in the EUT.

ITEM	BRAND	MODEL
WLAN/BT module	AZUREWAVE	AW-AH397

3. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	1TX
802.11a	1TX
802.11n (20MHz)	1TX 2TX
802.11n (40MHz)	1TX 2TX

4. The above EUT information is declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

FOR 5500 ~ 5700MHz

8 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500MHz	116	5580MHz
104	5520MHz	132	5660MHz
108	5540MHz	136	5680MHz
112	5560MHz	140	5700MHz

3 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510MHz	134	5670MHz
110	5550MHz		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	1 Tx
B	√	√	√	√	2 Tx

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

RADIATED EMISSION TEST (ABOVE 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
B	802.11n (20MHz)	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11n (20MHz)	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11n (20MHz)	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5

RADIATED EMISSION TEST (BELOW 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	5180-5240	38 to 46	38	OFDM	BPSK	13.5
		5260-5320	54 to 62	62	OFDM	BPSK	13.5
		5500-5700	102 to 134	134	OFDM	BPSK	13.5

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	5500-5700	102 to 134	134	OFDM	BPSK	13.5

☒ Following channel(s) was (were) selected for the final test as listed below.

BANDEDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
B	802.11n (20MHz)	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11n (20MHz)	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11n (20MHz)	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5

ANTENNA PORT CONDUCTED MEASUREMENT:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
	802.11n (20MHz)		36 to 48	36, 44, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
B	802.11n (20MHz)	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.5
	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
	802.11n (20MHz)	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.5
	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
	802.11n (20MHz)	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.5
	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5

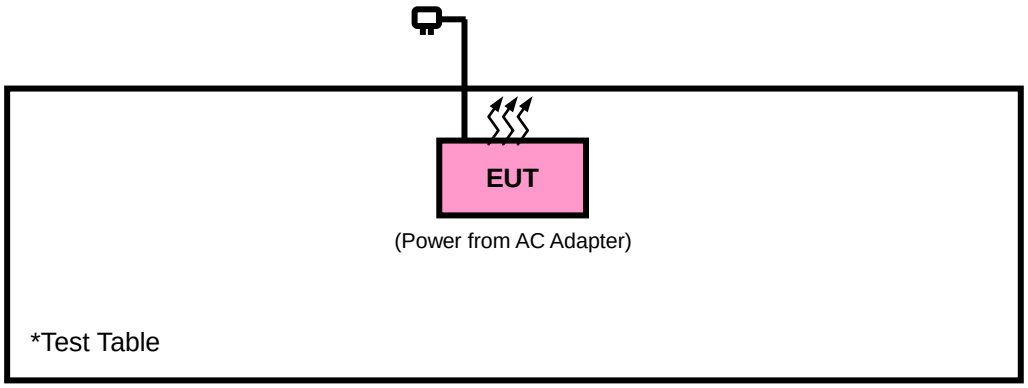
TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	David Huang
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	David Huang
PLC	25deg. C, 65%RH	120Vac, 60Hz	Anson Lin
APCM	25deg. C, 65%RH	120Vac, 60Hz	Howard Kao

3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units.

3.3.1 CONFIGURATION OF SYSTEM UNDER TEST



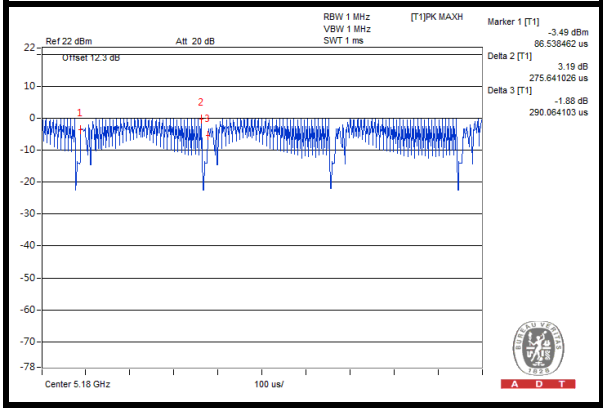
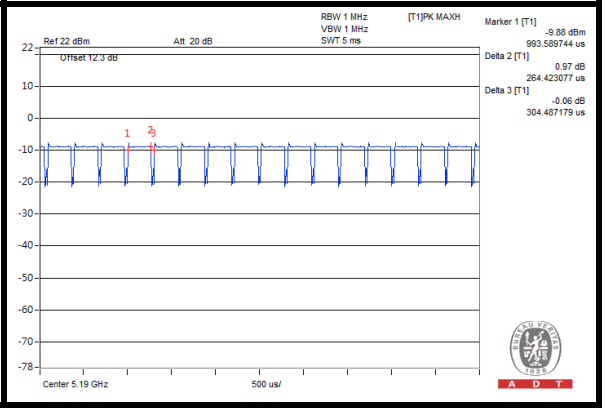
3.4 DUTY CYCLE OF TEST SIGNAL

If duty cycle is < 98%, duty factor shall be considered.

802.11a: Duty cycle of test signal is > 98 %, duty factor is not required.

802.11n (20MHz): Duty cycle = 2.756/2.900 = 0.950, Duty factor = 10 * log(1/0.950) = 0.22

802.11n (40MHz): Duty cycle = 2.644/3.045 = 0.868, Duty factor = 10 * log(1/0.868) = 0.61

802.11n (20MHz)	802.11n (40MHz)
	

3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

789033 D01 General UNII Test Procedures v01 r02

662911 D01 Multiple Transmitter Output v01 r02

ANSI C63.10-2009

All test items have been performed and recorded as per the above standards.

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
PK	PK
-27	68.3

NOTE: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts).

4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Aug. 21, 2012	Aug. 20, 2013
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 17, 2012	Dec. 16, 2013
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Mar. 25, 2013	Mar. 24, 2014
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Jan. 07, 2013	Jan. 06, 2014
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 25, 2012	Dec. 24, 2013
Loop Antenna	HFH2-Z2	100070	Jan. 31, 2012	Jan. 30, 2014
Preamplifier EMCI	EMC 012645	980115	Dec. 28, 2012	Dec. 27, 2013
Preamplifier EMCI	EMC 184045	980116	Dec. 28, 2012	Dec. 27, 2013
Preamplifier EMCI	EMC 330H	980112	Dec. 28, 2012	Dec. 27, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4	Oct. 19, 2012	Oct. 18, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 19, 2012	Oct. 18, 2013
RF signal cable Worken	RG-213	NA	Dec. 29, 2012	Dec. 28, 2013
Software	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower &Turn Table Controller MF	MF-7802	NA	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in HwaYa Chamber 10.
4. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
5. The FCC Site Registration No. is 690701.
6. The IC Site Registration No. is IC 7450F-10.

4.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

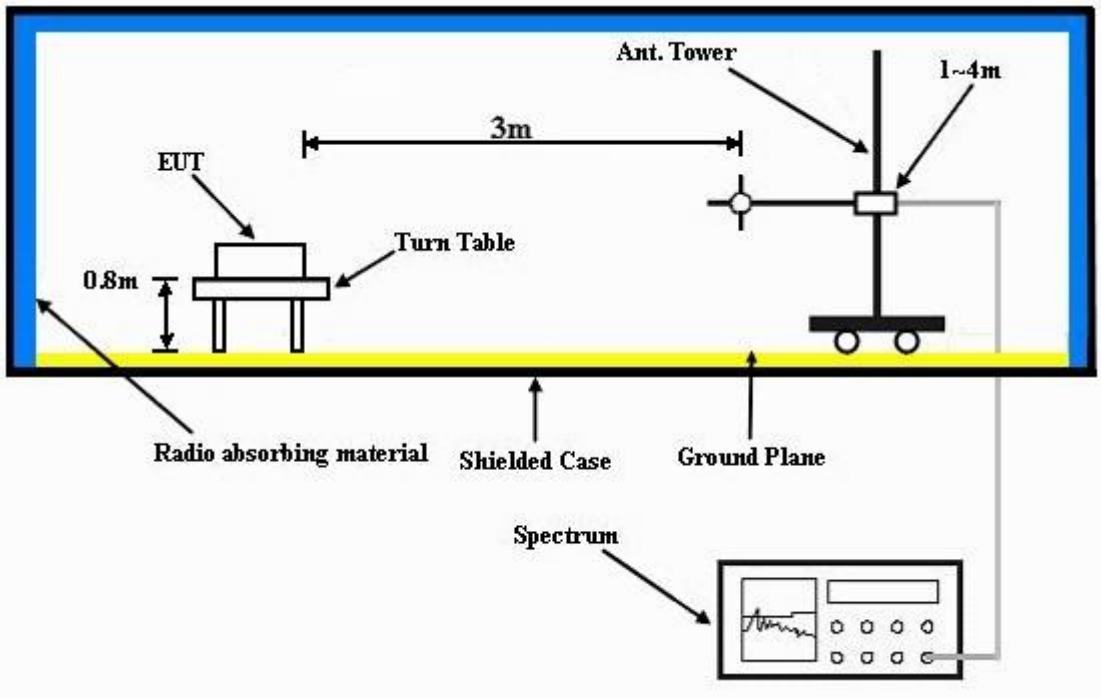
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 1kHz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.5 DEVIATION FROM TEST STANDARD

No deviation.

4.1.6 TEST SETUP



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.7 EUT OPERATING CONDITION

a. Placed the EUT on a testing table.

b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.8 TEST RESULTS

ABOVE 1GHz DATA:

MODE A

802.11a

Band 1

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	**FREQUENCY RANGE**	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	**TESTED BY**	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB/m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5150	39.04	37.71	54	-14.96	31.32	7.33	37.32	100	286	Average
5150	50.66	49.33	74	-23.34	31.32	7.33	37.32	100	286	Peak
5180	84.93	83.6			31.35	7.32	37.34	100	286	Average
5180	93.6	92.27			31.35	7.32	37.34	100	286	Peak
5350	39.4	37.7	54	-14.6	31.48	7.4	37.18	100	286	Average
5350	49.71	48.01	74	-24.29	31.48	7.4	37.18	100	286	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB/m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5150	38.97	37.64	54	-15.03	31.32	7.33	37.32	100	76	Average
5150	49.1	47.77	74	-24.9	31.32	7.33	37.32	100	76	Peak
5180	83.84	82.51			31.35	7.32	37.34	100	76	Average
5180	92.16	90.83			31.35	7.32	37.34	100	76	Peak
5350	39.09	37.39	54	-14.91	31.48	7.4	37.18	100	76	Average
5350	50.07	48.37	74	-23.93	31.48	7.4	37.18	100	76	Peak

REMARKS: 5180MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.96	37.63	54	-15.04	31.32	7.33	37.32	100	289	Average
5150	48.93	47.6	74	-25.07	31.32	7.33	37.32	100	289	Peak
5220	86.11	84.78			31.37	7.32	37.36	100	289	Average
5220	94.14	92.81			31.37	7.32	37.36	100	289	Peak
5350	39.12	37.42	54	-14.88	31.48	7.4	37.18	100	289	Average
5350	48.39	46.69	74	-25.61	31.48	7.4	37.18	100	289	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.88	37.55	54	-15.12	31.32	7.33	37.32	100	76	Average
5150	49.58	48.25	74	-24.42	31.32	7.33	37.32	100	76	Peak
5220	85.97	84.64			31.37	7.32	37.36	100	76	Average
5220	93.89	92.56			31.37	7.32	37.36	100	76	Peak
5350	39.22	37.52	54	-14.78	31.48	7.4	37.18	100	76	Average
5350	48.15	46.45	74	-25.85	31.48	7.4	37.18	100	76	Peak

REMARKS: 5220MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.9	37.57	54	-15.1	31.32	7.33	37.32	100	289	Average
5150	48.31	46.98	74	-25.69	31.32	7.33	37.32	100	289	Peak
5240	86.14	84.73			31.39	7.34	37.32	100	289	Average
5240	94.5	93.09			31.39	7.34	37.32	100	289	Peak
5350	39.2	37.5	54	-14.8	31.48	7.4	37.18	100	289	Average
5350	48.96	47.26	74	-25.04	31.48	7.4	37.18	100	289	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.88	37.55	54	-15.12	31.32	7.33	37.32	100	76	Average
5150	49.51	48.18	74	-24.49	31.32	7.33	37.32	100	76	Peak
5240	85.59	84.18			31.39	7.34	37.32	100	76	Average
5240	93.8	92.39			31.39	7.34	37.32	100	76	Peak
5350	39.19	37.49	54	-14.81	31.48	7.4	37.18	100	76	Average
5350	49.14	47.44	74	-24.86	31.48	7.4	37.18	100	76	Peak

REMARKS: 5240MHz: Fundamental frequency.

Band 2

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.89	37.56	54	-15.11	31.32	7.33	37.32	100	289	Average
5150	49.18	47.85	74	-24.82	31.32	7.33	37.32	100	289	Peak
5260	85.84	84.34			31.41	7.36	37.27	100	289	Average
5260	94.18	92.68			31.41	7.36	37.27	100	289	Peak
5350	39.19	37.49	54	-14.81	31.48	7.4	37.18	100	289	Average
5350	50.67	48.97	74	-23.33	31.48	7.4	37.18	100	289	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.91	37.58	54	-15.09	31.32	7.33	37.32	100	76	Average
5150	48.25	46.92	74	-25.75	31.32	7.33	37.32	100	76	Peak
5260	85.83	84.33			31.41	7.36	37.27	100	76	Average
5260	93.77	92.27			31.41	7.36	37.27	100	76	Peak
5350	39.2	37.5	54	-14.8	31.48	7.4	37.18	100	76	Average
5350	49.5	47.8	74	-24.5	31.48	7.4	37.18	100	76	Peak

REMARKS: 5260MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.88	37.55	54	-15.12	31.32	7.33	37.32	100	287	Average
5150	48.02	46.69	74	-25.98	31.32	7.33	37.32	100	287	Peak
5300	85.12	83.47			31.44	7.4	37.19	100	287	Average
5300	93.73	92.08			31.44	7.4	37.19	100	287	Peak
5350	39.24	37.54	54	-14.76	31.48	7.4	37.18	100	287	Average
5350	49.57	47.87	74	-24.43	31.48	7.4	37.18	100	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.93	37.6	54	-15.07	31.32	7.33	37.32	100	80	Average
5150	50.6	49.27	74	-23.4	31.32	7.33	37.32	100	80	Peak
5300	84.63	82.98			31.44	7.4	37.19	100	80	Average
5300	92.86	91.21			31.44	7.4	37.19	100	80	Peak
5350	39.29	37.59	54	-14.71	31.48	7.4	37.18	100	80	Average
5350	49.55	47.85	74	-24.45	31.48	7.4	37.18	100	80	Peak

REMARKS: 5300MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.89	37.56	54	-15.11	31.32	7.33	37.32	100	289	Average
5150	49.74	48.41	74	-24.26	31.32	7.33	37.32	100	289	Peak
5320	85.35	83.69			31.45	7.4	37.19	100	289	Average
5320	93.71	92.05			31.45	7.4	37.19	100	289	Peak
5350	39.51	37.81	54	-14.49	31.48	7.4	37.18	100	289	Average
5350	49.42	47.72	74	-24.58	31.48	7.4	37.18	100	289	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.88	37.55	54	-15.12	31.32	7.33	37.32	100	76	Average
5150	48.99	47.66	74	-25.01	31.32	7.33	37.32	100	76	Peak
5320	84.08	82.42			31.45	7.4	37.19	100	76	Average
5320	92.79	91.13			31.45	7.4	37.19	100	76	Peak
5350	39.3	37.6	54	-14.7	31.48	7.4	37.18	100	76	Average
5350	50.54	48.84	74	-23.46	31.48	7.4	37.18	100	76	Peak

REMARKS: 5320MHz: Fundamental frequency.

Band 3

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	39.43	37.42	54	-14.57	31.56	7.53	37.08	100	284	Average
5460	49.12	47.11	74	-24.88	31.56	7.53	37.08	100	284	Peak
5470	50.2	48.18	68.3	-18.1	31.57	7.53	37.08	100	284	Peak
5500	85.15	82.99			31.6	7.59	37.03	100	284	Average
5500	92.69	90.53			31.6	7.59	37.03	100	284	Peak
5725	50.92	48.68	68.3	-17.38	31.96	7.71	37.43	100	284	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	39.45	37.44	54	-14.55	31.56	7.53	37.08	102	110	Average
5460	50.06	48.05	74	-23.94	31.56	7.53	37.08	102	110	Peak
5470	50.71	48.69	68.3	-17.59	31.57	7.53	37.08	102	110	Peak
5500	84.82	82.66			31.6	7.59	37.03	102	110	Average
5500	92.74	90.58			31.6	7.59	37.03	102	110	Peak
5725	49.41	47.17	68.3	-18.89	31.96	7.71	37.43	102	110	Peak

REMARKS:

1. 5500MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	39.41	37.4	54	-14.59	31.56	7.53	37.08	100	286	Average
5460	48.69	46.68	74	-25.31	31.56	7.53	37.08	100	286	Peak
5470	49.68	47.66	68.3	-18.62	31.57	7.53	37.08	100	286	Peak
5580	87.56	85.44			31.71	7.57	37.16	100	286	Average
5580	95.91	93.79			31.71	7.57	37.16	100	286	Peak
5725	51.56	49.32	68.3	-16.74	31.96	7.71	37.43	100	286	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	39.33	37.32	54	-14.67	31.56	7.53	37.08	103	284	Average
5460	49.87	47.86	74	-24.13	31.56	7.53	37.08	103	284	Peak
5470	49.44	47.42	68.3	-18.86	31.57	7.53	37.08	103	284	Peak
5580	87.49	85.37			31.71	7.57	37.16	103	284	Average
5580	95.76	93.64			31.71	7.57	37.16	103	284	Peak
5725	50.23	47.99	68.3	-18.07	31.96	7.71	37.43	103	284	Peak

REMARKS:

1. 5580MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5456	39.82	37.81	54	-14.18	31.56	7.53	37.08	100	286	Average
5456	51.98	49.97	74	-22.02	31.56	7.53	37.08	100	286	Peak
5470	49.77	47.75	68.3	-18.53	31.57	7.53	37.08	100	286	Peak
5700	85.03	82.84			31.9	7.69	37.4	100	286	Average
5700	93.4	91.21			31.9	7.69	37.4	100	286	Peak
5725	52.16	49.92	68.3	-16.14	31.96	7.71	37.43	100	286	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5424	39.55	37.8	54	-14.45	31.53	7.4	37.18	100	95	Average
5424	51.71	49.96	74	-22.29	31.53	7.4	37.18	100	95	Peak
5470	48.54	46.52	68.3	-19.76	31.57	7.53	37.08	100	95	Peak
5700	84.74	82.55			31.9	7.69	37.4	100	95	Average
5700	93.12	90.93			31.9	7.69	37.4	100	95	Peak
5725	51.42	49.18	68.3	-16.88	31.96	7.71	37.43	100	95	Peak

REMARKS:

1. 5700MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

802.11n (20MHz)

Band 1

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5096	39.78	38.43	54	-14.22	31.28	7.35	37.28	100	289	Average
5096	51.37	50.02	74	-22.63	31.28	7.35	37.28	100	289	Peak
5180	85.97	84.64			31.35	7.32	37.34	100	289	Average
5180	93.92	92.59			31.35	7.32	37.34	100	289	Peak
5446	39.86	37.96	54	-14.14	31.56	7.47	37.13	100	289	Average
5446	51.93	50.03	74	-22.07	31.56	7.47	37.13	100	289	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5046	40.54	39.3	54	-13.46	31.24	7.25	37.25	100	91	Average
5046	51.42	50.18	74	-22.58	31.24	7.25	37.25	100	91	Peak
5180	84.26	82.93			31.35	7.32	37.34	100	91	Average
5180	92.26	90.93			31.35	7.32	37.34	100	91	Peak
5410	39.78	38.04	54	-14.22	31.52	7.4	37.18	100	91	Average
5410	52.53	50.79	74	-21.47	31.52	7.4	37.18	100	91	Peak

REMARKS: 5180MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5136	41.3	39.95	54	-12.7	31.31	7.34	37.3	100	95	Average
5136	51.45	50.1	74	-22.55	31.31	7.34	37.3	100	95	Peak
5220	85.33	84			31.37	7.32	37.36	100	95	Average
5220	92.77	91.44			31.37	7.32	37.36	100	95	Peak
5458	40.76	38.75	54	-13.24	31.56	7.53	37.08	100	95	Average
5458	51.01	49	74	-22.99	31.56	7.53	37.08	100	95	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5128	39.74	38.39	54	-14.26	31.31	7.34	37.3	100	289	Average
5128	51.1	49.75	74	-22.9	31.31	7.34	37.3	100	289	Peak
5220	85.02	83.69			31.37	7.32	37.36	100	289	Average
5220	92.7	91.37			31.37	7.32	37.36	100	289	Peak
5452	39.84	37.83	54	-14.16	31.56	7.53	37.08	100	289	Average
5452	51.6	49.59	74	-22.4	31.56	7.53	37.08	100	289	Peak

REMARKS: 5220MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5146	40.35	39.02	54	-13.65	31.32	7.33	37.32	100	289	Average
5146	51.2	49.87	74	-22.8	31.32	7.33	37.32	100	289	Peak
5240	85.32	83.91			31.39	7.34	37.32	100	289	Average
5240	93.46	92.05			31.39	7.34	37.32	100	289	Peak
5438	40.52	38.63	54	-13.48	31.55	7.47	37.13	100	289	Average
5438	51.01	49.12	74	-22.99	31.55	7.47	37.13	100	289	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5066	40.19	38.94	54	-13.81	31.25	7.25	37.25	100	95	Average
5066	50.78	49.53	74	-23.22	31.25	7.25	37.25	100	95	Peak
5240	84.67	83.26			31.39	7.34	37.32	100	95	Average
5240	92.37	90.96			31.39	7.34	37.32	100	95	Peak
5360	40.48	38.78	54	-13.52	31.48	7.4	37.18	100	95	Average
5360	51.88	50.18	74	-22.12	31.48	7.4	37.18	100	95	Peak

REMARKS: 5240MHz: Fundamental frequency.

Band 2

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5060	40.48	39.23	54	-13.52	31.25	7.25	37.25	100	287	Average
5060	51.44	50.19	74	-22.56	31.25	7.25	37.25	100	287	Peak
5260	85.23	83.73			31.41	7.36	37.27	100	287	Average
5260	92.95	91.45			31.41	7.36	37.27	100	287	Peak
5446	40.66	38.76	54	-13.34	31.56	7.47	37.13	100	287	Average
5446	51.48	49.58	74	-22.52	31.56	7.47	37.13	100	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5120	40.84	39.51	54	-13.16	31.29	7.34	37.3	100	96	Average
5120	51.06	49.73	74	-22.94	31.29	7.34	37.3	100	96	Peak
5260	84.84	83.34			31.41	7.36	37.27	100	96	Average
5260	92.47	90.97			31.41	7.36	37.27	100	96	Peak
5444	40.69	38.8	54	-13.31	31.55	7.47	37.13	100	96	Average
5444	52.11	50.22	74	-21.89	31.55	7.47	37.13	100	96	Peak

REMARKS: 5260MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5044	40.22	38.98	54	-13.78	31.24	7.25	37.25	100	96	Average
5044	51.71	50.47	74	-22.29	31.24	7.25	37.25	100	96	Peak
5300	85.25	83.6			31.44	7.4	37.19	100	96	Average
5300	93.19	91.54			31.44	7.4	37.19	100	96	Peak
5418	40.59	38.84	54	-13.41	31.53	7.4	37.18	100	96	Average
5418	51.75	50	74	-22.25	31.53	7.4	37.18	100	96	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5042	40.21	38.97	54	-13.79	31.24	7.25	37.25	107	287	Average
5042	51.87	50.63	74	-22.13	31.24	7.25	37.25	107	287	Peak
5300	84.37	82.72			31.44	7.4	37.19	107	287	Average
5300	92.04	90.39			31.44	7.4	37.19	107	287	Peak
5432	40.66	38.77	54	-13.34	31.55	7.47	37.13	107	287	Average
5432	51.43	49.54	74	-22.57	31.55	7.47	37.13	107	287	Peak

REMARKS: 5300MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5022	40.2	39.02	54	-13.8	31.23	7.19	37.24	107	287	Average
5022	51.21	50.03	74	-22.79	31.23	7.19	37.24	107	287	Peak
5320	86.11	84.45			31.45	7.4	37.19	107	287	Average
5320	93.75	92.09			31.45	7.4	37.19	107	287	Peak
5386	40.53	38.8	54	-13.47	31.51	7.4	37.18	107	287	Average
5386	51.53	49.8	74	-22.47	31.51	7.4	37.18	107	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5040	39.85	38.66	54	-14.15	31.24	7.19	37.24	100	78	Average
5040	51.59	50.4	74	-22.41	31.24	7.19	37.24	100	78	Peak
5320	85.04	83.38			31.45	7.4	37.19	100	78	Average
5320	92.95	91.29			31.45	7.4	37.19	100	78	Peak
5414	40.34	38.59	54	-13.66	31.53	7.4	37.18	100	78	Average
5414	52.02	50.27	74	-21.98	31.53	7.4	37.18	100	78	Peak

REMARKS: 5320MHz: Fundamental frequency.

Band 3

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5442	40.59	38.7	54	-13.41	31.55	7.47	37.13	132	285	Average
5442	51.84	49.95	74	-22.16	31.55	7.47	37.13	132	285	Peak
5470	49.46	47.44	68.3	-18.84	31.57	7.53	37.08	132	285	Peak
5500	85.27	83.11			31.6	7.59	37.03	132	285	Average
5500	93.55	91.39			31.6	7.59	37.03	132	285	Peak
5725	51.64	49.4	68.3	-16.66	31.96	7.71	37.43	132	285	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5428	40.71	38.84	54	-13.29	31.53	7.47	37.13	103	110	Average
5428	51.67	49.8	74	-22.33	31.53	7.47	37.13	103	110	Peak
5470	49.59	47.57	68.3	-18.71	31.57	7.53	37.08	103	110	Peak
5500	84.26	82.1			31.6	7.59	37.03	103	110	Average
5500	92.58	90.42			31.6	7.59	37.03	103	110	Peak
5725	51.53	49.29	68.3	-16.77	31.96	7.71	37.43	103	110	Peak

REMARKS:

1. 5500MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5434	40.61	38.72	54	-13.39	31.55	7.47	37.13	132	287	Average
5434	51.37	49.48	74	-22.63	31.55	7.47	37.13	132	287	Peak
5470	50.03	48.01	68.3	-18.27	31.57	7.53	37.08	132	287	Peak
5580	85.78	83.66			31.71	7.57	37.16	132	287	Average
5580	93.88	91.76			31.71	7.57	37.16	132	287	Peak
5725	51.6	49.36	68.3	-16.7	31.96	7.71	37.43	132	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5408	40.57	38.83	54	-13.43	31.52	7.4	37.18	100	109	Average
5408	50.91	49.17	74	-23.09	31.52	7.4	37.18	100	109	Peak
5470	50.22	48.2	68.3	-18.08	31.57	7.53	37.08	100	109	Peak
5580	85.34	83.22			31.71	7.57	37.16	100	109	Average
5580	93.43	91.31			31.71	7.57	37.16	100	109	Peak
5725	50	47.76	68.3	-18.3	31.96	7.71	37.43	100	109	Peak

REMARKS:

1. 5580MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5456	40.73	38.72	54	-13.27	31.56	7.53	37.08	134	283	Average
5456	51.41	49.4	74	-22.59	31.56	7.53	37.08	134	283	Peak
5470	49.99	47.97	68.3	-18.31	31.57	7.53	37.08	134	283	Peak
5700	90.18	87.99			31.9	7.69	37.4	134	283	Average
5700	98.3	96.11			31.9	7.69	37.4	134	283	Peak
5725	52.54	50.3	68.3	-15.76	31.96	7.71	37.43	134	283	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5440	40.64	38.75	54	-13.36	31.55	7.47	37.13	100	96	Average
5440	51.1	49.21	74	-22.9	31.55	7.47	37.13	100	96	Peak
5470	49.8	47.78	68.3	-18.5	31.57	7.53	37.08	100	96	Peak
5700	85.35	83.16			31.9	7.69	37.4	100	96	Average
5700	93.22	91.03			31.9	7.69	37.4	100	96	Peak
5725	50.88	48.64	68.3	-17.42	31.96	7.71	37.43	100	96	Peak

REMARKS:

1. 5700MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

802.11n (40MHz)

Band 1

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5148	41.37	40.04	54	-12.63	31.32	7.33	37.32	100	288	Average
5148	52.23	50.9	74	-21.77	31.32	7.33	37.32	100	288	Peak
5190	82.31	80.98			31.35	7.32	37.34	100	288	Average
5190	91.22	89.89			31.35	7.32	37.34	100	288	Peak
5442	40.75	38.86	54	-13.25	31.55	7.47	37.13	100	288	Average
5442	51.84	49.95	74	-22.16	31.55	7.47	37.13	100	288	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5054	40.97	39.73	54	-13.03	31.24	7.25	37.25	100	98	Average
5054	51.98	50.74	74	-22.02	31.24	7.25	37.25	100	98	Peak
5190	80.83	79.5			31.35	7.32	37.34	100	98	Average
5190	89.46	88.13			31.35	7.32	37.34	100	98	Peak
5420	40.62	38.87	54	-13.38	31.53	7.4	37.18	100	98	Average
5420	51.36	49.61	74	-22.64	31.53	7.4	37.18	100	98	Peak

REMARKS: 5190MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5044	40.6	39.36	54	-13.4	31.24	7.25	37.25	100	287	Average
5044	51.21	49.97	74	-22.79	31.24	7.25	37.25	100	287	Peak
5230	82.95	81.54			31.39	7.34	37.32	100	287	Average
5230	90.93	89.52			31.39	7.34	37.32	100	287	Peak
5368	40.62	38.91	54	-13.38	31.49	7.4	37.18	100	287	Average
5368	51.27	49.56	74	-22.73	31.49	7.4	37.18	100	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5082	40.36	39.06	54	-13.64	31.27	7.3	37.27	100	98	Average
5082	51.97	50.67	74	-22.03	31.27	7.3	37.27	100	98	Peak
5230	82.29	80.88			31.39	7.34	37.32	100	98	Average
5230	90.87	89.46			31.39	7.34	37.32	100	98	Peak
5452	40.92	38.91	54	-13.08	31.56	7.53	37.08	100	98	Average
5452	52.53	50.52	74	-21.47	31.56	7.53	37.08	100	98	Peak

REMARKS: 5230MHz: Fundamental frequency.

Band 2

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5066	40.36	39.11	54	-13.64	31.25	7.25	37.25	100	287	Average
5066	51.83	50.58	74	-22.17	31.25	7.25	37.25	100	287	Peak
5270	82.36	80.86			31.41	7.36	37.27	100	287	Average
5270	90.97	89.47			31.41	7.36	37.27	100	287	Peak
5460	40.79	38.78	54	-13.21	31.56	7.53	37.08	100	287	Average
5460	52.51	50.5	74	-21.49	31.56	7.53	37.08	100	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5022	40.16	38.98	54	-13.84	31.23	7.19	37.24	100	85	Average
5022	51.48	50.3	74	-22.52	31.23	7.19	37.24	100	85	Peak
5270	81.08	79.58			31.41	7.36	37.27	100	85	Average
5270	89.34	87.84			31.41	7.36	37.27	100	85	Peak
5430	40.78	38.89	54	-13.22	31.55	7.47	37.13	100	85	Average
5430	51.26	49.37	74	-22.74	31.55	7.47	37.13	100	85	Peak

REMARKS: 5270MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5022	40.2	39.02	54	-13.8	31.23	7.19	37.24	100	85	Average
5022	50.96	49.78	74	-23.04	31.23	7.19	37.24	100	85	Peak
5310	82.17	80.51			31.45	7.4	37.19	100	85	Average
5310	90.78	89.12			31.45	7.4	37.19	100	85	Peak
5450	40.83	38.82	54	-13.17	31.56	7.53	37.08	100	85	Average
5450	51.49	49.48	74	-22.51	31.56	7.53	37.08	100	85	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5136	40.4	39.05	54	-13.6	31.31	7.34	37.3	100	286	Average
5136	51.8	50.45	74	-22.2	31.31	7.34	37.3	100	286	Peak
5310	81.04	79.38			31.45	7.4	37.19	100	286	Average
5310	89.5	87.84			31.45	7.4	37.19	100	286	Peak
5380	40.84	39.11	54	-13.16	31.51	7.4	37.18	100	286	Average
5380	51.93	50.2	74	-22.07	31.51	7.4	37.18	100	286	Peak

REMARKS: 5310MHz: Fundamental frequency.

Band 3

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5434	40.74	38.85	54	-13.26	31.55	7.47	37.13	128	288	Average
5434	52.09	50.2	74	-21.91	31.55	7.47	37.13	128	288	Peak
5470	51.57	49.55	68.3	-16.73	31.57	7.53	37.08	128	288	Peak
5510	82.81	80.68			31.6	7.59	37.06	128	288	Average
5510	91.84	89.71			31.6	7.59	37.06	128	288	Peak
5725	52	49.76	68.3	-16.3	31.96	7.71	37.43	128	288	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5434	40.75	38.86	54	-13.25	31.55	7.47	37.13	102	114	Average
5434	52.04	50.15	74	-21.96	31.55	7.47	37.13	102	114	Peak
5470	49.88	47.86	68.3	-18.42	31.57	7.53	37.08	102	114	Peak
5510	80.56	78.43			31.6	7.59	37.06	102	114	Average
5510	89.41	87.28			31.6	7.59	37.06	102	114	Peak
5725	50.51	48.27	68.3	-17.79	31.96	7.71	37.43	102	114	Peak

REMARKS:

1. 5510MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 110	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5380	40.61	38.88	54	-13.39	31.51	7.4	37.18	130	287	Average
5380	51.52	49.79	74	-22.48	31.51	7.4	37.18	130	287	Peak
5470	50.58	48.56	68.3	-17.72	31.57	7.53	37.08	130	287	Peak
5550	84.21	82.04			31.68	7.58	37.09	130	287	Average
5550	93.1	90.93			31.68	7.58	37.09	130	287	Peak
5725	50.6	48.36	68.3	-17.7	31.96	7.71	37.43	130	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5416	40.92	39.17	54	-13.08	31.53	7.4	37.18	102	114	Average
5416	52.17	50.42	74	-21.83	31.53	7.4	37.18	102	114	Peak
5470	51.38	49.36	68.3	-16.92	31.57	7.53	37.08	102	114	Peak
5550	83.01	80.84			31.68	7.58	37.09	102	114	Average
5550	91.45	89.28			31.68	7.58	37.09	102	114	Peak
5725	50.76	48.52	68.3	-17.54	31.96	7.71	37.43	102	114	Peak

REMARKS:

1. 5550MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5406	40.53	38.79	54	-13.47	31.52	7.4	37.18	102	96	Average
5406	51.54	49.8	74	-22.46	31.52	7.4	37.18	102	96	Peak
5470	50.57	48.55	68.3	-17.73	31.57	7.53	37.08	102	96	Peak
5670	82.79	80.59			31.88	7.66	37.34	102	96	Average
5670	91.62	89.42			31.88	7.66	37.34	102	96	Peak
5725	49.96	47.72	68.3	-18.34	31.96	7.71	37.43	102	96	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5450	41.09	39.08	54	-12.91	31.56	7.53	37.08	130	287	Average
5450	51.27	49.26	74	-22.73	31.56	7.53	37.08	130	287	Peak
5470	50.26	48.24	68.3	-18.04	31.57	7.53	37.08	130	287	Peak
5670	84.22	82.02			31.88	7.66	37.34	130	287	Average
5670	93.8	91.6			31.88	7.66	37.34	130	287	Peak
5725	50.97	48.73	68.3	-17.33	31.96	7.71	37.43	130	287	Peak

REMARKS:

1. 5670MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

BELOW 1GHz WORST-CASE DATA：802.11n (40MHz)

MODE A

Band 1

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
69.69	22.22	42.37	40	-17.78	10.77	0.9	31.82	115	246	Peak
159.06	21.3	39.04	43.5	-22.2	12.73	1.38	31.85	103	175	Peak
209.01	24.29	44.49	43.5	-19.21	9.77	1.64	31.61	108	360	Peak
349	25.28	40.78	46	-20.72	14.12	2.22	31.84	114	250	Peak
600.3	27.35	36.9	46	-18.65	19.61	3.09	32.25	106	314	Peak
899.9	31.83	36.36	46	-14.17	23.51	3.97	32.01	105	271	Peak
ANTENNA POLARITY & test distance: VERTICAL at 3 m										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
35.13	30.64	48.32	40	-9.36	12.79	0.59	31.06	107	193	Peak
158.79	23.56	41.3	43.5	-19.94	12.73	1.38	31.85	103	266	Peak
213.6	18.59	38.63	43.5	-24.91	9.93	1.66	31.63	113	288	Peak
347.6	21.92	37.45	46	-24.08	14.08	2.22	31.83	107	130	Peak
533.1	25.7	36.43	46	-20.3	18.08	2.89	31.7	106	298	Peak
859.3	29.57	34.63	46	-16.43	22.99	3.85	31.9	110	304	Peak

Band 2

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
51.6	21.28	38.95	40	-18.72	12.87	0.77	31.31	106	228	Peak
198.48	20.56	41.3	43.5	-22.94	9.43	1.59	31.76	104	276	Peak
270.03	23.88	41.95	46	-22.12	12.05	1.91	32.03	101	189	Peak
482	24.62	36.77	46	-21.38	16.96	2.72	31.83	104	217	Peak
647.9	25.99	34.6	46	-20.01	20.19	3.23	32.03	105	230	Peak
969.9	28.78	32.64	54	-25.22	23.9	4.11	31.87	105	207	Peak
ANTENNA POLARITY & test distance: VERTICAL at 3 m										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
43.5	32.12	48.93	40	-7.88	13.59	0.71	31.11	101	287	Peak
118.83	16.19	35.97	43.5	-27.31	10.93	1.18	31.89	103	296	Peak
236.28	20.72	39.84	46	-25.28	10.91	1.77	31.8	107	244	Peak
400.1	25.17	39.51	46	-20.83	15.35	2.43	32.12	112	208	Peak
699.7	29.8	37.35	46	-16.2	20.81	3.43	31.79	104	216	Peak
960.1	29.32	33.31	54	-24.68	23.85	4.09	31.93	106	299	Peak

Band 3

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	30MHz ~ 1GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
81.03	20.47	42.9	40	-19.53	8.15	0.98	31.56	115	276	Peak
234.39	24.47	43.7	46	-21.53	10.83	1.76	31.82	104	172	Peak
300	30.34	47.19	46	-15.66	12.94	2.05	31.84	133	241	Peak
400.1	24.56	38.9	46	-21.44	15.35	2.43	32.12	100	221	Peak
600.3	26.01	35.56	46	-19.99	19.61	3.09	32.25	108	295	Peak
864.2	30.32	35.35	46	-15.68	23.05	3.86	31.94	110	245	Peak
ANTENNA POLARITY & test distance: VERTICAL at 3 m										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
43.5	29.48	46.29	40	-10.52	13.59	0.71	31.11	113	85	Peak
211.17	20.07	40.17	43.5	-23.43	9.85	1.65	31.6	112	169	Peak
288.66	22.04	39.09	46	-23.96	12.63	2	31.68	104	238	Peak
479.9	28.96	41.17	46	-17.04	16.93	2.71	31.85	102	270	Peak
647.9	27.09	35.7	46	-18.91	20.19	3.23	32.03	105	286	Peak
953.8	30.61	34.58	46	-15.39	23.81	4.08	31.86	106	188	Peak

MODE B

802.11n (20MHz)

Band 1

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5088	40.5	39.2	54	-13.5	31.27	7.3	37.27	100	169	Average
5088	52.37	51.07	74	-21.63	31.27	7.3	37.27	100	169	Peak
5180	86.24	84.91			31.35	7.32	37.34	100	169	Average
5180	94.21	92.88			31.35	7.32	37.34	100	169	Peak
5450	40.96	38.95	54	-13.04	31.56	7.53	37.08	100	169	Average
5450	52.38	50.37	74	-21.62	31.56	7.53	37.08	100	169	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5050	40.53	39.29	54	-13.47	31.24	7.25	37.25	100	277	Average
5050	51.66	50.42	74	-22.34	31.24	7.25	37.25	100	277	Peak
5180	86.47	85.14			31.35	7.32	37.34	100	277	Average
5180	94.32	92.99			31.35	7.32	37.34	100	277	Peak
5412	40.57	38.82	54	-13.43	31.53	7.4	37.18	100	277	Average
5412	51.98	50.23	74	-22.02	31.53	7.4	37.18	100	277	Peak

REMARKS: 5180MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 44	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5120	40.79	39.46	54	-13.21	31.29	7.34	37.3	100	165	Average
5120	51.33	50	74	-22.67	31.29	7.34	37.3	100	165	Peak
5220	86.54	85.21			31.37	7.32	37.36	100	165	Average
5220	94.19	92.86			31.37	7.32	37.36	100	165	Peak
5432	40.75	38.86	54	-13.25	31.55	7.47	37.13	100	165	Average
5432	52.3	50.41	74	-21.7	31.55	7.47	37.13	100	165	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5006	40.33	39.21	54	-13.67	31.21	7.14	37.23	100	277	Average
5006	51.88	50.76	74	-22.12	31.21	7.14	37.23	100	277	Peak
5220	87.6	86.27			31.37	7.32	37.36	100	277	Average
5220	95.25	93.92			31.37	7.32	37.36	100	277	Peak
5420	40.7	38.95	54	-13.3	31.53	7.4	37.18	100	277	Average
5420	52.08	50.33	74	-21.92	31.53	7.4	37.18	100	277	Peak

REMARKS: 5220MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5064	40.48	39.23	54	-13.52	31.25	7.25	37.25	100	165	Average
5064	52.67	51.42	74	-21.33	31.25	7.25	37.25	100	165	Peak
5240	87.42	86.01			31.39	7.34	37.32	100	165	Average
5240	94.55	93.14			31.39	7.34	37.32	100	165	Peak
5458	41.09	39.08	54	-12.91	31.56	7.53	37.08	100	165	Average
5458	51.82	49.81	74	-22.18	31.56	7.53	37.08	100	165	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5078	40.73	39.43	54	-13.27	31.27	7.3	37.27	100	277	Average
5078	52.24	50.94	74	-21.76	31.27	7.3	37.27	100	277	Peak
5240	87.93	86.52			31.39	7.34	37.32	100	277	Average
5240	95.87	94.46			31.39	7.34	37.32	100	277	Peak
5422	40.78	39.03	54	-13.22	31.53	7.4	37.18	100	277	Average
5422	52.59	50.84	74	-21.41	31.53	7.4	37.18	100	277	Peak

REMARKS: 5240MHz: Fundamental frequency.

Band 2

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5076	40.59	39.29	54	-13.41	31.27	7.3	37.27	100	164	Average
5076	51.81	50.51	74	-22.19	31.27	7.3	37.27	100	164	Peak
5260	87.54	86.04			31.41	7.36	37.27	100	164	Average
5260	95.32	93.82			31.41	7.36	37.27	100	164	Peak
5448	40.72	38.82	54	-13.28	31.56	7.47	37.13	100	164	Average
5448	51.23	49.33	74	-22.77	31.56	7.47	37.13	100	164	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5122	40.54	39.21	54	-13.46	31.29	7.34	37.3	100	307	Average
5122	51.53	50.2	74	-22.47	31.29	7.34	37.3	100	307	Peak
5260	88.4	86.9			31.41	7.36	37.27	100	307	Average
5260	96.45	94.95			31.41	7.36	37.27	100	307	Peak
5452	40.99	38.98	54	-13.01	31.56	7.53	37.08	100	307	Average
5452	51.79	49.78	74	-22.21	31.56	7.53	37.08	100	307	Peak

REMARKS: 5260MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5002	40.34	39.23	54	-13.66	31.2	7.14	37.23	100	166	Average
5002	51.47	50.36	74	-22.53	31.2	7.14	37.23	100	166	Peak
5300	87.77	86.12			31.44	7.4	37.19	100	166	Average
5300	95.88	94.23			31.44	7.4	37.19	100	166	Peak
5454	40.85	38.84	54	-13.15	31.56	7.53	37.08	100	166	Average
5454	51.93	49.92	74	-22.07	31.56	7.53	37.08	100	166	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5092	40.47	39.16	54	-13.53	31.28	7.3	37.27	100	307	Average
5092	51.64	50.33	74	-22.36	31.28	7.3	37.27	100	307	Peak
5300	86.88	85.23			31.44	7.4	37.19	100	307	Average
5300	95	93.35			31.44	7.4	37.19	100	307	Peak
5460	40.96	38.95	54	-13.04	31.56	7.53	37.08	100	307	Average
5460	51.76	49.75	74	-22.24	31.56	7.53	37.08	100	307	Peak

REMARKS: 5300MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5096	39.62	38.27	54	-14.38	31.28	7.35	37.28	100	165	Average
5096	51.75	50.4	74	-22.25	31.28	7.35	37.28	100	165	Peak
5320	86.7	85.04			31.45	7.4	37.19	100	165	Average
5320	95.27	93.61			31.45	7.4	37.19	100	165	Peak
5414	39.82	38.07	54	-14.18	31.53	7.4	37.18	100	165	Average
5414	52.51	50.76	74	-21.49	31.53	7.4	37.18	100	165	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5026	40.13	38.95	54	-13.87	31.23	7.19	37.24	100	306	Average
5026	51.98	50.8	74	-22.02	31.23	7.19	37.24	100	306	Peak
5320	86.83	85.17			31.45	7.4	37.19	100	306	Average
5320	94.88	93.22			31.45	7.4	37.19	100	306	Peak
5406	40.79	39.05	54	-13.21	31.52	7.4	37.18	100	306	Average
5406	53	51.26	74	-21	31.52	7.4	37.18	100	306	Peak

REMARKS: 5320MHz: Fundamental frequency.

Band 3

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5398	40.79	39.05	54	-13.21	31.52	7.4	37.18	100	116	Average
5398	52.79	51.05	74	-21.21	31.52	7.4	37.18	100	116	Peak
5470	50.83	48.81	68.3	-17.47	31.57	7.53	37.08	100	116	Peak
5500	88.29	86.13			31.6	7.59	37.03	100	116	Average
5500	97.09	94.93			31.6	7.59	37.03	100	116	Peak
5725	51.25	49.01	68.3	-17.05	31.96	7.71	37.43	100	116	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5440	40.93	39.04	54	-13.07	31.55	7.47	37.13	100	175	Average
5440	52.38	50.49	74	-21.62	31.55	7.47	37.13	100	175	Peak
5470	50.87	48.85	68.3	-17.43	31.57	7.53	37.08	100	175	Peak
5500	87.95	85.79			31.6	7.59	37.03	100	175	Average
5500	94.93	92.77			31.6	7.59	37.03	100	175	Peak
5725	50.7	48.46	68.3	-17.6	31.96	7.71	37.43	100	175	Peak

REMARKS:

1. 5500MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5418	40.94	39.19	54	-13.06	31.53	7.4	37.18	100	174	Average
5418	52.12	50.37	74	-21.88	31.53	7.4	37.18	100	174	Peak
5470	52.03	50.01	68.3	-16.27	31.57	7.53	37.08	100	174	Peak
5580	89.21	87.09			31.71	7.57	37.16	100	174	Average
5580	97.51	95.39			31.71	7.57	37.16	100	174	Peak
5725	51.53	49.29	68.3	-16.77	31.96	7.71	37.43	100	174	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5458	41.16	39.15	54	-12.84	31.56	7.53	37.08	100	28	Average
5458	52.15	50.14	74	-21.85	31.56	7.53	37.08	100	28	Peak
5470	52.05	50.03	68.3	-16.25	31.57	7.53	37.08	100	28	Peak
5580	87.72	85.6			31.71	7.57	37.16	100	28	Average
5580	95.65	93.53			31.71	7.57	37.16	100	28	Peak
5725	52.64	50.4	68.3	-15.66	31.96	7.71	37.43	100	28	Peak

REMARKS:

1. 5580MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5414	40.74	38.99	54	-13.26	31.53	7.4	37.18	100	178	Average
5414	51.95	50.2	74	-22.05	31.53	7.4	37.18	100	178	Peak
5470	50.06	48.04	68.3	-18.24	31.57	7.53	37.08	100	178	Peak
5700	90.7	88.51			31.9	7.69	37.4	100	178	Average
5700	98.83	96.64			31.9	7.69	37.4	100	178	Peak
5725	52.28	50.04	68.3	-16.02	31.96	7.71	37.43	100	178	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5426	40.83	38.96	54	-13.17	31.53	7.47	37.13	102	13	Average
5426	52.22	50.35	74	-21.78	31.53	7.47	37.13	102	13	Peak
5470	50.68	48.66	68.3	-17.62	31.57	7.53	37.08	102	13	Peak
5700	88.45	86.26			31.9	7.69	37.4	102	13	Average
5700	96.68	94.49			31.9	7.69	37.4	102	13	Peak
5725	51.77	49.53	68.3	-16.53	31.96	7.71	37.43	102	13	Peak

REMARKS:

1. 5700MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

802.11n (40MHz)

Band 1

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	41.17	39.84	54	-12.83	31.32	7.33	37.32	100	287	Average
5150	50.06	48.73	74	-23.94	31.32	7.33	37.32	100	287	Peak
5190	82.97	81.64			31.35	7.32	37.34	100	287	Average
5190	91.32	89.99			31.35	7.32	37.34	100	287	Peak
5350	39.4	37.7	54	-14.6	31.48	7.4	37.18	100	287	Average
5350	49.76	48.06	74	-24.24	31.48	7.4	37.18	100	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	41.01	39.68	54	-12.99	31.32	7.33	37.32	100	76	Average
5150	50.62	49.29	74	-23.38	31.32	7.33	37.32	100	76	Peak
5190	82.59	81.26			31.35	7.32	37.34	100	76	Average
5190	90.62	89.29			31.35	7.32	37.34	100	76	Peak
5350	39.51	37.81	54	-14.49	31.48	7.4	37.18	100	76	Average
5350	49.51	47.81	74	-24.49	31.48	7.4	37.18	100	76	Peak

REMARKS: 5190MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.9	37.57	54	-15.1	31.32	7.33	37.32	100	287	Average
5150	50.59	49.26	74	-23.41	31.32	7.33	37.32	100	287	Peak
5230	84.08	82.67			31.39	7.34	37.32	100	287	Average
5230	92.44	91.03			31.39	7.34	37.32	100	287	Peak
5350	39.24	37.54	54	-14.76	31.48	7.4	37.18	100	287	Average
5350	50.35	48.65	74	-23.65	31.48	7.4	37.18	100	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.86	37.53	54	-15.14	31.32	7.33	37.32	100	76	Average
5150	50.73	49.4	74	-23.27	31.32	7.33	37.32	100	76	Peak
5230	83.03	81.62			31.39	7.34	37.32	100	76	Average
5230	92.12	90.71			31.39	7.34	37.32	100	76	Peak
5350	39.23	37.53	54	-14.77	31.48	7.4	37.18	100	76	Average
5350	50.49	48.79	74	-23.51	31.48	7.4	37.18	100	76	Peak

REMARKS: 5230MHz: Fundamental frequency.

Band 2

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	39.03	37.7	54	-14.97	31.32	7.33	37.32	100	287	Average
5150	51.75	50.42	74	-22.25	31.32	7.33	37.32	100	287	Peak
5270	84.4	82.9			31.41	7.36	37.27	100	287	Average
5270	92.82	91.32			31.41	7.36	37.27	100	287	Peak
5350	39.29	37.59	54	-14.71	31.48	7.4	37.18	100	287	Average
5350	51.26	49.56	74	-22.74	31.48	7.4	37.18	100	287	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.97	37.64	54	-15.03	31.32	7.33	37.32	100	76	Average
5150	49.78	48.45	74	-24.22	31.32	7.33	37.32	100	76	Peak
5270	83.5	82			31.41	7.36	37.27	100	76	Average
5270	92.17	90.67			31.41	7.36	37.27	100	76	Peak
5350	39.29	37.59	54	-14.71	31.48	7.4	37.18	100	76	Average
5350	50.36	48.66	74	-23.64	31.48	7.4	37.18	100	76	Peak

REMARKS: 5270MHz: Fundamental frequency.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.98	37.65	54	-15.02	31.32	7.33	37.32	100	73	Average
5150	48.91	47.58	74	-25.09	31.32	7.33	37.32	100	73	Peak
5310	83.28	81.62			31.45	7.4	37.19	100	73	Average
5310	92.22	90.56			31.45	7.4	37.19	100	73	Peak
5350	41.29	39.59	54	-12.71	31.48	7.4	37.18	100	73	Average
5350	52.4	50.7	74	-21.6	31.48	7.4	37.18	100	73	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	38.97	37.64	54	-15.03	31.32	7.33	37.32	100	287	Average
5150	49.22	47.89	74	-24.78	31.32	7.33	37.32	100	287	Peak
5310	84.39	82.73			31.45	7.4	37.19	100	287	Average
5310	93.84	92.18			31.45	7.4	37.19	100	287	Peak
5350	42.5	40.8	54	-11.5	31.48	7.4	37.18	100	287	Average
5350	53.02	51.32	74	-20.98	31.48	7.4	37.18	100	287	Peak

REMARKS: 5310MHz: Fundamental frequency.

Band 3

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	40.11	38.1	54	-13.89	31.56	7.53	37.08	100	73	Average
5460	51.97	49.96	74	-22.03	31.56	7.53	37.08	100	73	Peak
5470	53.4	51.38	68.3	-14.9	31.57	7.53	37.08	100	73	Peak
5510	84.72	82.59			31.6	7.59	37.06	100	73	Average
5510	93.3	91.17			31.6	7.59	37.06	100	73	Peak
5724	51.68	49.44	68.3	-16.62	31.96	7.71	37.43	100	73	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	40.29	38.28	54	-13.71	31.56	7.53	37.08	100	286	Average
5460	50.41	48.4	74	-23.59	31.56	7.53	37.08	100	286	Peak
5470	51.61	49.59	68.3	-16.69	31.57	7.53	37.08	100	286	Peak
5510	82.71	80.58			31.6	7.59	37.06	100	286	Average
5510	92.32	90.19			31.6	7.59	37.06	100	286	Peak
5725	51.3	49.06	68.3	-17	31.96	7.71	37.43	100	286	Peak

REMARKS:

1. 5510MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 110	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	39.51	37.5	54	-14.49	31.56	7.53	37.08	100	246	Average
5460	51.18	49.17	74	-22.82	31.56	7.53	37.08	100	246	Peak
5470	49.94	47.92	68.3	-18.36	31.57	7.53	37.08	100	246	Peak
5550	85.33	83.16			31.68	7.58	37.09	100	246	Average
5550	94.11	91.94			31.68	7.58	37.09	100	246	Peak
5724	50.94	48.7	68.3	-17.36	31.96	7.71	37.43	100	246	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	39.6	37.59	54	-14.4	31.56	7.53	37.08	100	285	Average
5460	51.04	49.03	74	-22.96	31.56	7.53	37.08	100	285	Peak
5470	49.63	47.61	68.3	-18.67	31.57	7.53	37.08	100	285	Peak
5550	85.86	83.69			31.68	7.58	37.09	100	285	Average
5550	93.69	91.52			31.68	7.58	37.09	100	285	Peak
5725	52.11	49.87	68.3	-16.19	31.96	7.71	37.43	100	285	Peak

REMARKS:

1. 5550MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	1GHz ~ 40GHz
INPUT POWER (SYSTEM)	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	39.41	37.4	54	-14.59	31.56	7.53	37.08	100	72	Average
5460	49.86	47.85	74	-24.14	31.56	7.53	37.08	100	72	Peak
5470	49.73	47.71	68.3	-18.57	31.57	7.53	37.08	100	72	Peak
5670	86	83.8			31.88	7.66	37.34	100	72	Average
5670	94.98	92.78			31.88	7.66	37.34	100	72	Peak
5724	51.13	48.89	68.3	-17.17	31.96	7.71	37.43	100	72	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB/m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	39.34	37.33	54	-14.66	31.56	7.53	37.08	100	246	Average
5460	49.93	47.92	74	-24.07	31.56	7.53	37.08	100	246	Peak
5470	49.84	47.82	68.3	-18.46	31.57	7.53	37.08	100	246	Peak
5670	84.8	82.6			31.88	7.66	37.34	100	246	Average
5670	93.72	91.52			31.88	7.66	37.34	100	246	Peak
5724	50.54	48.3	68.3	-17.76	31.96	7.71	37.43	100	246	Peak

REMARKS:

1. 5670MHz: Fundamental frequency.
2. 5470MHz & 5725MHz: Out of restricted band.

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Nov. 09, 2012	Nov. 08, 2013
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 28, 2012	Dec. 27, 2013
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 21, 2012	Dec. 20, 2013
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 06, 2012	Jul. 05, 2013
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

4.2.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

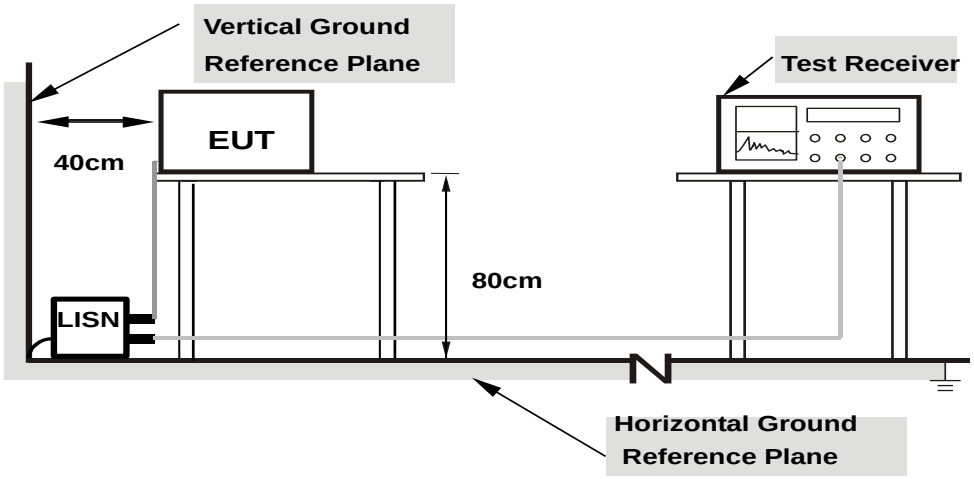
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

4.2.7 TEST RESULTS

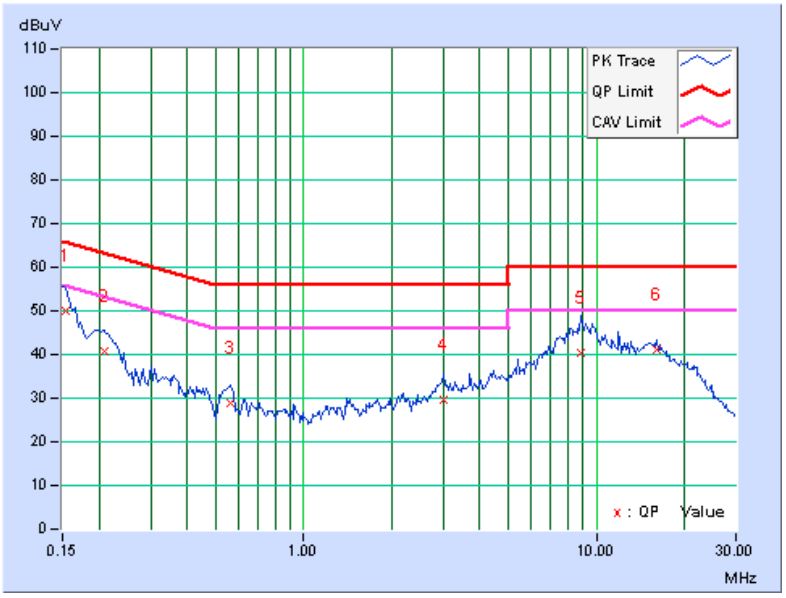
CONDUCTED WORST-CASE DATA：802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	0.12	49.72	37.71	49.84	37.83	65.79	55.79	-15.94	-17.95
2	0.20859	0.12	40.70	29.35	40.82	29.47	63.26	53.26	-22.44	-23.79
3	0.56406	0.17	28.60	20.13	28.77	20.30	56.00	46.00	-27.23	-25.70
4	3.00391	0.29	29.39	23.39	29.68	23.68	56.00	46.00	-26.32	-22.32
5	8.90625	0.60	39.80	33.19	40.40	33.79	60.00	50.00	-19.60	-16.21
6	**16.01563**	**1.00**	**40.24**	**35.28**	**41.24**	**36.28**	**60.00**	**50.00**	**-18.76**	**-13.72**

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

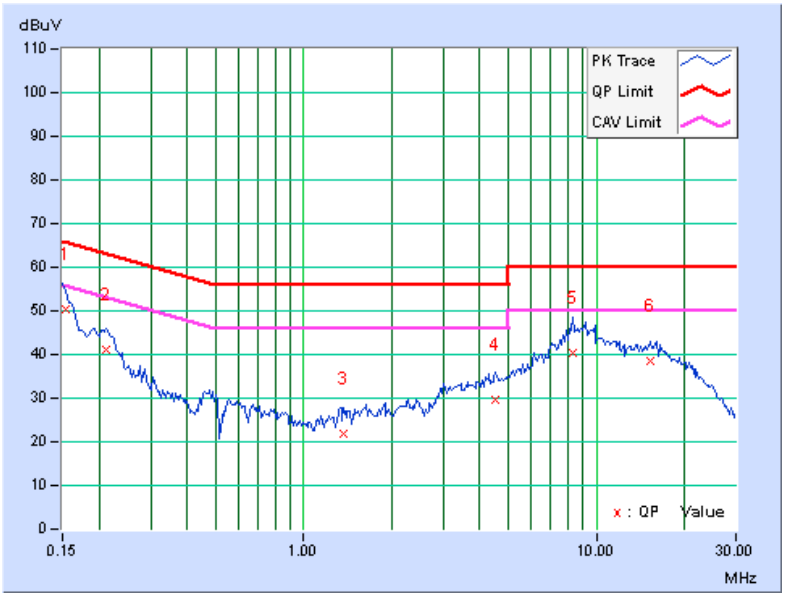


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	0.17	50.15	37.77	50.32	37.94	65.79	55.79	-15.46	-17.84
2	0.21250	0.17	40.97	29.00	41.14	29.17	63.11	53.11	-21.96	-23.93
3	1.37500	0.26	21.76	14.16	22.02	14.42	56.00	46.00	-33.98	-31.58
4	4.52734	0.40	29.16	22.44	29.56	22.84	56.00	46.00	-26.44	-23.16
5	8.35938	0.53	39.68	32.86	40.21	33.39	60.00	50.00	-19.79	-16.61
6	15.23828	0.77	37.80	30.24	38.57	31.01	60.00	50.00	-21.43	-18.99

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



4.3 PEAK TRANSMIT POWER MEASUREMENT

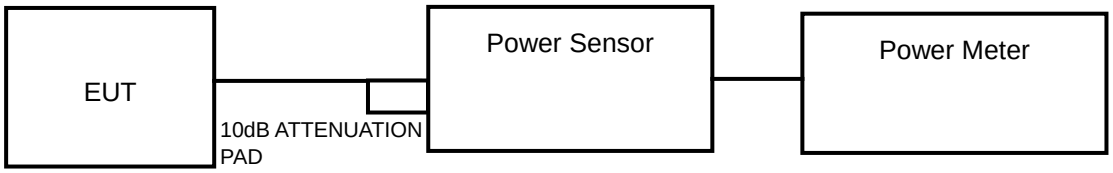
4.3.1 LIMITS OF PEAK TRANSMIT POWER MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.250 ~ 5.350GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.470 ~ 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB

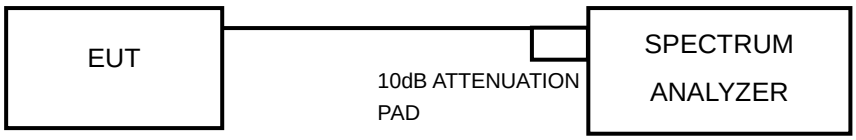
NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 26dB BANDWIDTH



4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

<802.11a, 802.11n (20MHz), 802.11n (40MHz)>

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

<802.11 ac (80MHz)>

Method SA-1 is used to perform output power measurement, trigger and gating function of spectrum analyzer is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

FOR 26dB BANDWIDTH

1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = Peak.
4) Trace mode = max hold.
5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.3.7 TEST RESULTS

MODE A

POWER OUTPUT: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	6.546	8.16	17	PASS
44	5220	5.848	7.67	17	PASS
48	5240	6.053	7.82	17	PASS
52	5260	6.918	8.40	24	PASS
60	5300	7.691	8.86	24	PASS
64	5320	8.395	9.24	24	PASS
100	5500	8.570	9.33	24	PASS
116	5580	8.750	9.42	24	PASS
140	5700	8.892	9.49	24	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	6.889	8.38	17	PASS
44	5220	6.042	7.81	17	PASS
48	5240	6.225	7.94	17	PASS
52	5260	7.115	8.52	24	PASS
60	5300	7.801	8.92	24	PASS
64	5320	8.456	9.27	24	PASS
100	5500	8.753	9.42	24	PASS
116	5580	8.793	9.44	24	PASS
140	5700	8.875	9.48	24	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	8.836	9.46	17	PASS
46	5230	7.696	8.86	17	PASS
54	5270	8.959	9.52	24	PASS
62	5310	12.086	10.82	24	PASS
102	5510	10.406	10.17	24	PASS
110	5550	10.972	10.40	24	PASS
134	5670	14.937	11.74	24	PASS

MODE B

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
36	5180	7.70	9.03	13.892	11.43	17	PASS
44	5220	7.53	8.19	12.258	10.88	17	PASS
48	5240	7.53	7.87	11.790	10.72	17	PASS
52	5260	7.35	8.15	11.968	10.78	17	PASS
60	5300	8.17	9.22	14.923	11.74	17	PASS
64	5320	7.39	9.00	13.431	11.28	17	PASS
100	5500	7.25	8.98	13.220	11.21	17	PASS
116	5580	9.70	9.36	17.969	12.55	17	PASS
140	5700	9.34	9.18	16.876	12.27	17	PASS

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
38	5190	8.08	9.56	15.473	11.90	17	PASS
46	5230	8.29	8.92	14.553	11.63	17	PASS
54	5270	8.50	9.50	16.002	12.04	17	PASS
62	5310	9.02	10.13	18.295	12.62	17	PASS
102	5510	8.52	10.18	17.546	12.44	17	PASS
110	5550	9.19	9.92	18.127	12.58	17	PASS
134	5670	11.32	11.15	26.600	14.25	17	PASS

26dB BANDWIDTH:

MODE A

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	19.90	PASS
44	5220	19.90	PASS
48	5240	19.89	PASS
52	5260	19.89	PASS
60	5300	19.86	PASS
64	5320	19.88	PASS
100	5500	19.86	PASS
116	5580	19.84	PASS
140	5700	19.84	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	21.49	PASS
44	5220	21.47	PASS
48	5240	21.47	PASS
52	5260	21.41	PASS
60	5300	21.50	PASS
64	5320	21.47	PASS
100	5500	21.48	PASS
116	5580	21.43	PASS
140	5700	21.48	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
38	5190	43.85	PASS
46	5230	44.02	PASS
54	5270	43.80	PASS
62	5310	44.11	PASS
102	5510	44.38	PASS
110	5550	44.25	PASS
134	5670	44.01	PASS

MODE B

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
36	5180	22.18	20.96	PASS
44	5220	22.38	21.86	PASS
48	5240	22.49	21.88	PASS
52	5260	22.23	20.97	PASS
60	5300	22.44	21.85	PASS
64	5320	22.47	21.80	PASS
100	5500	21.93	21.14	PASS
116	5580	21.43	21.09	PASS
140	5700	21.83	21.62	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
38	5190	42.73	44.10	PASS
46	5230	43.00	44.36	PASS
54	5270	42.62	44.16	PASS
62	5310	42.70	44.17	PASS
102	5510	43.12	43.98	PASS
110	5550	42.76	44.07	PASS
134	5670	42.66	44.00	PASS

4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	4dBm
5.250 ~ 5.350GHz	11dBm
5.470 ~ 5.725GHz	11dBm

4.4.2 TEST SETUP

4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.4.4 TEST PROCEDURES

<802.11a, 802.11n (20MHz), 802.11n (40MHz)>
Using method SA-2 alternative
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3) Sweep time = 4second.
4) Perform a single sweep.
5) Record the max value and add 10 log (1/duty cycle)

<802.11ac (80MHz)>
Using method SA-1
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3) Sweep time = 4second.
4) Perform a single sweep.

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6

4.4.7 TEST RESULTS

MODE A

802.11a

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	-4.53	0	-4.53	4	PASS
44	5220	-5.00	0	-5.00	4	PASS
48	5240	-4.82	0	-4.82	4	PASS
52	5260	-4.11	0	-4.11	11	PASS
60	5300	-3.38	0	-3.38	11	PASS
64	5320	-3.06	0	-3.06	11	PASS
100	5500	-2.74	0	-2.74	11	PASS
116	5580	-2.72	0	-2.72	11	PASS
140	5700	-3.15	0	-3.15	11	PASS

NOTE: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	-4.69	0.22	-4.47	4	PASS
44	5220	-5.21	0.22	-4.99	4	PASS
48	5240	-4.94	0.22	-4.72	4	PASS
52	5260	-4.28	0.22	-4.06	11	PASS
60	5300	-3.73	0.22	-3.51	11	PASS
64	5320	-3.33	0.22	-3.11	11	PASS
100	5500	-3.06	0.22	-2.84	11	PASS
116	5580	-2.87	0.22	-2.65	11	PASS
140	5700	-3.44	0.22	-3.22	11	PASS

NOTE: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-6.34	0.61	-5.73	4	PASS
46	5230	-6.78	0.61	-6.17	4	PASS
54	5270	-6.04	0.61	-5.43	11	PASS
62	5310	-5.46	0.61	-4.85	11	PASS
102	5510	-4.59	0.61	-3.98	11	PASS
110	5550	-4.44	0.61	-3.83	11	PASS
134	5670	-4.56	0.61	-3.95	11	PASS

NOTE: Refer to section 3.3 for duty cycle spectrum plot.

MODE B

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1					
36	5180	-4.84	-4.53	-1.67	0.22	-1.45	4	PASS
44	5220	-4.00	-4.58	-1.27	0.22	-1.05	4	PASS
48	5240	-3.60	-3.96	-0.77	0.22	-0.54	4	PASS
52	5260	-4.04	-4.20	-1.11	0.22	-0.89	11	PASS
60	5300	-3.41	-2.87	-0.12	0.22	0.10	11	PASS
64	5320	-3.61	-2.59	-0.06	0.22	0.16	11	PASS
100	5500	-3.54	-2.64	-0.06	0.22	0.17	11	PASS
116	5580	-2.19	-2.31	0.76	0.22	0.98	11	PASS
140	5700	-2.57	-2.35	0.55	0.22	0.77	11	PASS

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5180 ~ 5320MHz:

   Directional gain = 1.61dBi + 10log(2) = 4.62 < 6dBi, so the limit no need to reduced.

   5500 ~ 5700MHz:

   Directional gain = 0.03dBi + 10log(2) = 3.04 < 6dBi, so the limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)		TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1					
38	5190	-7.67	-6.96	-4.29	0.61	-3.68	4	PASS
46	5230	-7.14	-7.16	-4.14	0.61	-3.53	4	PASS
54	5270	-6.71	-6.71	-3.70	0.61	-3.09	11	PASS
62	5310	-6.67	-5.91	-3.26	0.61	-2.65	11	PASS
102	5510	-6.58	-5.24	-2.85	0.61	-2.24	11	PASS
110	5550	-5.38	-5.19	-2.27	0.61	-1.66	11	PASS
134	5670	-4.80	-5.04	-1.91	0.61	-1.30	11	PASS

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5190 ~ 5310MHz:

   Directional gain = 1.61dBi + 10log(2) = 4.62 < 6dBi, so the limit no need to reduced.

   5510 ~ 5670MHz:

   Directional gain = 0.03dBi + 10log(2) = 3.04 < 6dBi, so the limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

4.5 PEAK POWER EXCURSION MEASUREMENT

4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB.

4.5.2 TEST SETUP

4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

1) Set RBW = 1 MHz, VBW ≥ 3 MHz, Detector = peak.
2) Trace mode = max-hold. Allow the sweeps to continue until the trace stabilizes.
3) Use the peak search function to find the peak of the spectrum.
4) Measure the PPSD.
5) Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITIONS

Same as 4.2.6

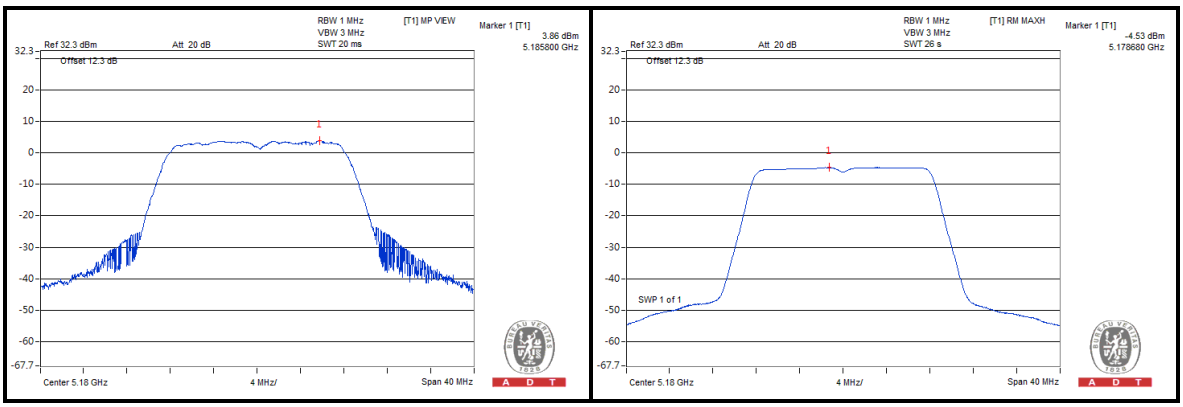
4.5.7 TEST RESULTS

MODE A

802.11a

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
36	5180	3.86	-4.53	-4.53	8.38	13	PASS
44	5220	3.33	-5.00	-5.00	8.33	13	PASS
48	5240	3.56	-4.82	-4.82	8.38	13	PASS
52	5260	4.24	-4.11	-4.11	8.35	13	PASS
60	5300	4.90	-3.38	-3.38	8.28	13	PASS
64	5320	5.18	-3.06	-3.06	8.24	13	PASS
100	5500	5.48	-2.74	-2.74	8.22	13	PASS
116	5580	5.52	-2.72	-2.72	8.24	13	PASS
140	5700	5.06	-3.15	-3.15	8.21	13	PASS

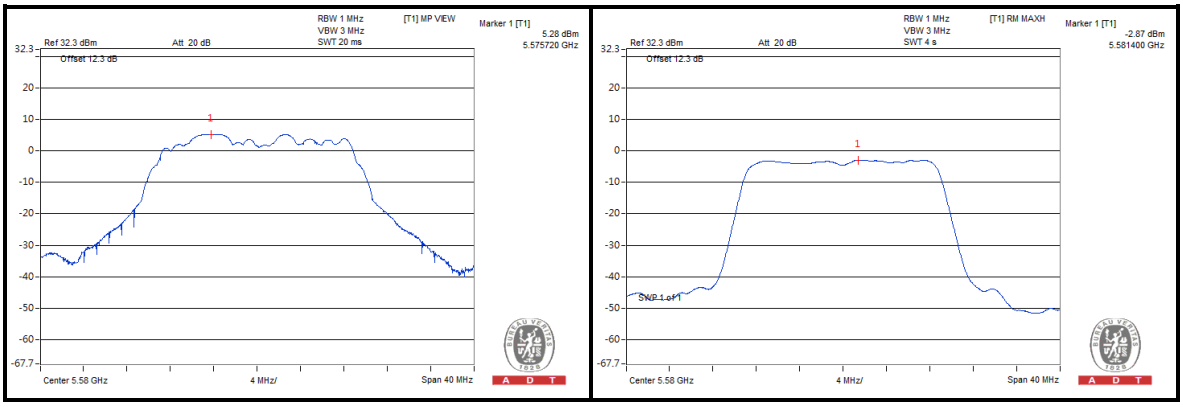
NOTE: Refer to section 3.3 for duty cycle spectrum plot.



802.11n (20MHz)

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
36	5180	3.31	-4.69	-4.47	7.78	13	PASS
44	5220	2.75	-5.21	-4.99	7.74	13	PASS
48	5240	2.96	-4.94	-4.72	7.68	13	PASS
52	5260	3.60	-4.28	-4.06	7.66	13	PASS
60	5300	4.24	-3.73	-3.51	7.75	13	PASS
64	5320	4.70	-3.33	-3.11	7.81	13	PASS
100	5500	5.09	-3.06	-2.84	7.93	13	PASS
116	5580	5.28	-2.87	-2.65	7.93	13	PASS
140	5700	4.70	-3.44	-3.22	7.92	13	PASS

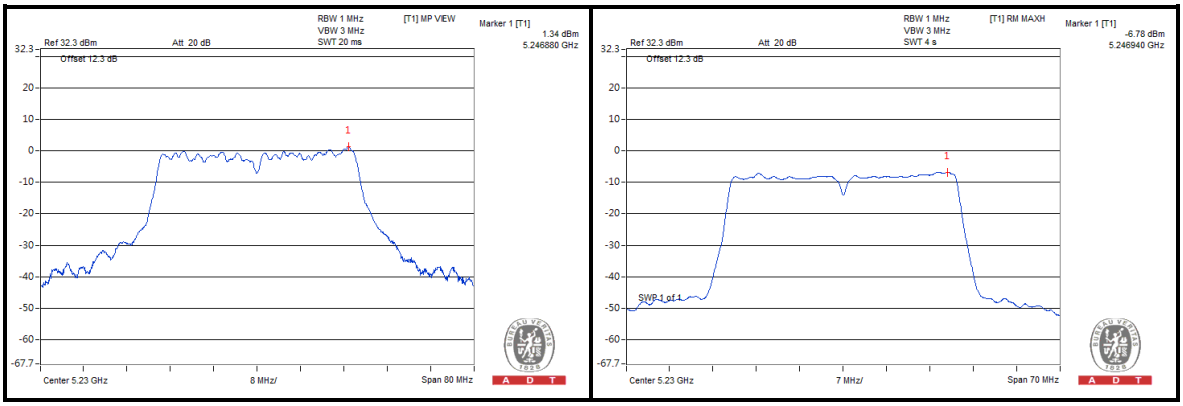
NOTE: Refer to section 3.3 for duty cycle spectrum plot.



802.11n (40MHz)

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
38	5190	1.74	-6.34	-5.73	7.47	13	PASS
46	5230	1.34	-6.78	-6.17	7.51	13	PASS
54	5270	1.97	-6.04	-5.43	7.40	13	PASS
62	5310	2.35	-5.46	-4.85	7.20	13	PASS
102	5510	2.66	-4.59	-3.98	6.64	13	PASS
110	5550	3.05	-4.44	-3.83	6.88	13	PASS
134	5670	3.12	-4.56	-3.95	7.07	13	PASS

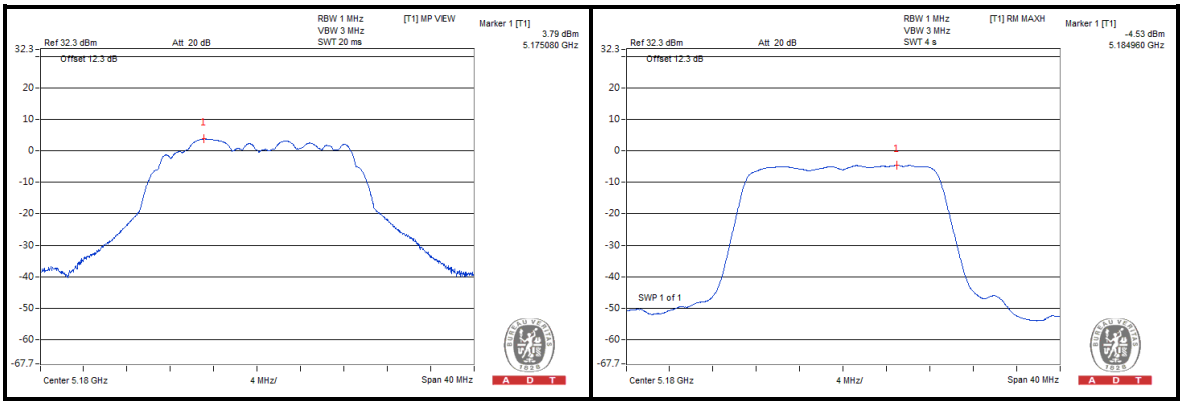
NOTE: Refer to section 3.3 for duty cycle spectrum plot.



MODE B

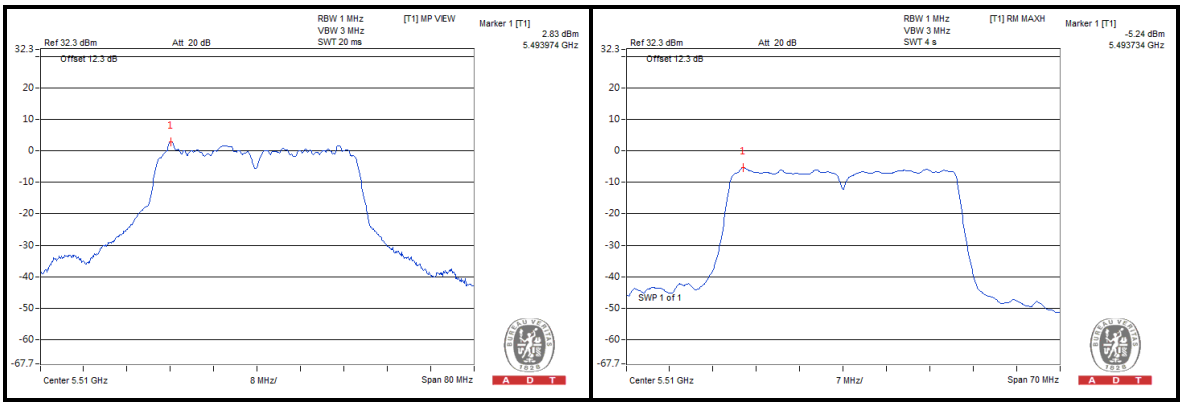
802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)		PPSD WITHOUT DUTY FACTOR (dBm)		PPSD WITH DUTY FACTOR (dBm)		PEAK EXCURSION (dB)		LIMIT (dB)	PASS /FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1		
36	5180	2.44	3.79	-4.84	-4.53	-4.62	-4.31	7.06	8.10	13	PASS
44	5220	3.29	3.01	-4.00	-4.58	-3.78	-4.36	7.07	7.37	13	PASS
48	5240	3.67	3.76	-3.60	-3.96	-3.38	-3.74	7.05	7.50	13	PASS
52	5260	3.20	3.71	-4.04	-4.20	-3.82	-3.98	7.02	7.69	13	PASS
60	5300	3.94	5.02	-3.41	-2.87	-3.19	-2.65	7.13	7.67	13	PASS
64	5320	3.68	5.27	-3.61	-2.59	-3.39	-2.37	7.07	7.64	13	PASS
100	5500	3.61	5.62	-3.54	-2.64	-3.32	-2.42	6.93	8.04	13	PASS
116	5580	5.55	5.63	-2.19	-2.31	-1.97	-2.09	7.52	7.72	13	PASS
140	5700	5.58	4.82	-2.57	-2.35	-2.35	-2.13	7.93	6.95	13	PASS



802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)		PPSD WITHOUT DUTY FACTOR (dBm)		PPSD WITH DUTY FACTOR (dBm)		PEAK EXCURSION (dB)		LIMIT (dB)	PASS /FAIL
		CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1	CHAIN 0	CHAIN 1		
38	5190	-0.79	0.92	-7.67	-6.96	-7.06	-6.35	6.27	7.27	13	PASS
46	5230	-0.25	0.51	-7.14	-7.16	-6.53	-6.55	6.28	7.06	13	PASS
54	5270	0.14	1.23	-6.71	-6.71	-6.10	-6.10	6.24	7.33	13	PASS
62	5310	0.15	2.14	-6.67	-5.91	-6.06	-5.30	6.21	7.44	13	PASS
102	5510	0.46	2.83	-6.58	-5.24	-5.97	-4.63	6.43	7.46	13	PASS
110	5550	1.43	2.81	-5.38	-5.19	-4.77	-4.58	6.20	7.39	13	PASS
134	5670	2.33	2.95	-4.80	-5.04	-4.19	-4.43	6.52	7.38	13	PASS

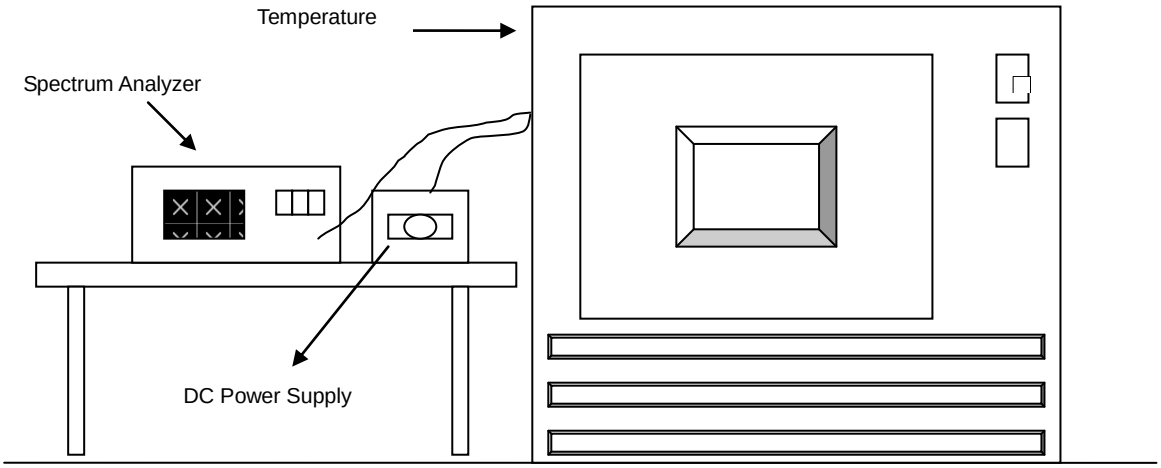


4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency of the carrier signal shall be maintained within band of operation

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.6.4 TEST PROCEDURE

a. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.

b. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.

c. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITION

Set the EUT transmit at un-modulation mode to test frequency stability.

4.6.7 TEST RESULTS

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
55	110	5320.041105	7.727	5320.041041	7.714	5320.041602	7.820	5320.041069	7.720
50	110	5320.042094	7.912	5320.042226	7.937	5320.041690	7.836	5320.042130	7.919
40	110	5320.043189	8.118	5320.043416	8.161	5320.042998	8.082	5320.042818	8.048
30	110	5320.043729	8.220	5320.044228	8.314	5320.043996	8.270	5320.044403	8.346
20	110	5320.045230	8.502	5320.045656	8.582	5320.045719	8.594	5320.045769	8.603
10	110	5320.044301	8.327	5320.044323	8.331	5320.043794	8.232	5320.044279	8.323
0	110	5320.042514	7.991	5320.042595	8.007	5320.042854	8.055	5320.042584	8.005
-10	110	5320.041108	7.727	5320.040738	7.658	5320.041276	7.759	5320.040927	7.693
-20	-	-	-	-	-	-	-	-	-
-30	-	-	-	-	-	-	-	-	-

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	93.5	5320.044491	8.363	5320.044656	8.394	5320.044403	8.346	5320.044883	8.437
	110.0	5320.045527	8.558	5320.045222	8.500	5320.045225	8.501	5320.045190	8.494
	126.5	5320.046145	8.674	5320.046291	8.701	5320.046531	8.746	5320.046362	8.715

NOTE: The EUT would shut down automatically when exceed -10~55 degree C range.

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

6. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
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Hwa Ya EMC/RF/Safety Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

7. APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

---END---